[4910-13-P]

#### DEPARTMENT OF TRANSPORTATION

**Federal Aviation Administration** 

**14 CFR Part 39** 

[Docket No. FAA-2015-0682; Directorate Identifier 2014-NM-074-AD; Amendment 39-18329; AD 2015-23-12]

RIN 2120-AA64

**Airworthiness Directives;** ATR – GIE Avions de Transport Régional Airplanes **AGENCY:** Federal Aviation Administration (FAA), Department of Transportation (DOT).

**ACTION:** Final rule.

SUMMARY: We are adopting a new airworthiness directive (AD) for all ATR – GIE Avions de Transport Régional Model ATR42 and ATR72 airplanes. This AD was prompted by new occurrences of certain cracked main landing gear (MLG) rear hinge pins. This AD requires identifying the serial number and part number of the MLG rear hinge pins, and replacing pins or the MLG if necessary. We are issuing this AD to detect and correct cracked rear hinge pins, which could lead to MLG structural failure, possibly resulting in collapse of the MLG and consequent injury to the occupants of the airplane.

DATES: This AD becomes effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of certain publications listed in this AD as of [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may examine the AD docket on the Internet at http://www.regulations.gov/#!docketDetail;D=FAA-2015-0682; or in person at the Docket Management Facility, U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC.

For service information identified in this AD, contact ATR – GIE Avions de Transport Régional, 1, Allée Pierre Nadot, 31712 Blagnac Cedex, France; telephone +33 (0) 5 62 21 62 21; fax +33 (0) 5 62 21 67 18; email continued.airworthiness@atr.fr; Internet http://www.aerochain.com. You may view this referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221. It is also available on the Internet at http://www.regulations.gov by searching for and locating Docket No. FAA-2015-0682.

**FOR FURTHER INFORMATION CONTACT:** Tom Rodriguez, Aerospace Engineer, International Branch, ANM-116, Transport Airplane Directorate, FAA, 1601 Lind Avenue SW., Renton, WA 98057-3356; telephone 425-227-1137; fax 425-227-1149.

### **SUPPLEMENTARY INFORMATION:**

#### **Discussion**

We issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 by adding an AD that would apply to all ATR – GIE Avions de Transport Régional Model ATR42 and ATR72 airplanes. The NPRM published in the <u>Federal Register</u> on April 10, 2015 (80 FR 19246).

The European Aviation Safety Agency (EASA), which is the Technical Agent for the Member States of the European Union, has issued EASA Airworthiness Directive 2014-0074, dated March 21, 2014 (referred to after this as the Mandatory Continuing Airworthiness Information, or "the MCAI"), to correct an unsafe condition for all ATR – GIE Avions de Transport Régional Model ATR42 and ATR72 airplanes. The MCAI states:

Prompted by cases of rupture of Main Landing Gear (MLG) rear hinge pin part number (P/N) D61000 encountered in service in 1994 and 1996, DGAC France issued [an] AD \* \* \* for ATR 42 aeroplanes and [another] AD \* \* \* for ATR 72 aeroplanes to require inspection and, depending on findings, corrective action.

Since those [French] ADs were issued, new occurrences of cracked rear hinge pin P/N D61000 were reported on ATR72 MLG.

The result of subsequent investigation revealed that the affected pins were subjected to a non-detected thermal abuse done in production during grinding process. Analysis also showed that other MLG pin P/N's could be affected by the same nonconformity.

This condition, if not detected and corrected, could lead to MLG structural failure, possibly resulting in collapse of the MLG and consequently injury to the occupants of the aeroplane.

For the reasons described above, this [EASA] AD requires inspection and, depending on findings, replacement of affected pins.

You may examine the MCAI in the AD docket on the Internet at http://www.regulations.gov/#!documentDetail;D=FAA-2015-0682-0002.

#### **Comments**

We gave the public the opportunity to participate in developing this AD. We received no comments on the NPRM (80 FR 19246, April 10, 2015) or on the determination of the cost to the public.

#### Conclusion

We reviewed the relevant data and determined that air safety and the public interest require adopting this AD as proposed except for minor editorial changes. We have determined that these minor changes:

- Are consistent with the intent that was proposed in the NPRM (80 FR 19246,
   April 10, 2015) for correcting the unsafe condition; and
- Do not add any additional burden upon the public than was already proposed in the NPRM (80 FR 19246, April 10, 2015).

# Related Service Information under 1 CFR part 51

Messier-Bugatti-Dowty has issued the following service information, which describes procedures for inspecting the MLG hinge pin.

- Service Bulletin 631-32-213, dated December 16, 2013.
- Service Bulletin 631-32-214, dated January 13, 2014.
- Service Bulletin 631-32-215, dated January 13, 2014.
- Service Bulletin 631-32-216, Revision 1, dated December 17, 2013.
- Service Bulletin 631-32-219, dated March 3, 2014.
- Service Bulletin 631-32-220, dated March 3, 2014.

This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section of this AD.

# **Costs of Compliance**

We estimate that this AD affects 81 airplanes of U.S. registry.

We also estimate that it will take about 8 work-hours per product to comply with the basic requirements of this AD. The average labor rate is \$85 per work-hour. Required parts will cost about \$16,000 per product. Based on these figures, we estimate the cost of this AD on U.S. operators to be \$1,351,080, or \$16,680 per product.

According to the manufacturer, some of the costs of this AD may be covered under warranty, thereby reducing the cost impact on affected individuals. We do not control warranty coverage for affected individuals. As a result, we have included all costs in our cost estimate.

### **Authority for this Rulemaking**

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator.

"Subtitle VII: Aviation Programs," describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in "Subtitle VII, Part A, Subpart III, Section 44701: General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

# **Regulatory Findings**

We determined that this AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

- 1. Is not a "significant regulatory action" under Executive Order 12866;
- 2. Is not a "significant rule" under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979);
  - 3. Will not affect intrastate aviation in Alaska; and
- 4. Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

#### **Examining the AD Docket**

You may examine the AD docket on the Internet at http://www.regulations.gov/#!docketDetail;D=FAA-2015-0682; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this AD, the regulatory evaluation, any comments received, and other information. The street address for the Docket Operations office (telephone 800-647-5527) is in the ADDRESSES section.

# List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

# **Adoption of the Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

# **PART 39 - AIRWORTHINESS DIRECTIVES**

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

# § 39.13 [Amended]

2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

**2015-23-12 ATR** – **GIE Avions de Transport Régional:** Amendment 39-18329. Docket No. FAA-2015-0682; Directorate Identifier 2014-NM-074-AD.

# (a) Effective Date

This AD becomes effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

#### (b) Affected ADs

None.

# (c) Applicability

This AD applies to ATR – GIE Avions de Transport Régional Model ATR42-200, -300, -320, and -500 airplanes; and Model ATR72-101, -201, -102, -202, -211, -212, and -212A airplanes; certificated in any category; all certified models; all manufacturer serial numbers.

# (d) Subject

Air Transport Association (ATA) of America Code 32, Landing Gear.

### (e) Reason

This AD was prompted by new occurrences of certain cracked main landing gear (MLG) rear hinge pins. We are issuing this AD to detect and correct cracked rear hinge

pins, which could lead to MLG structural failure, possibly resulting in collapse of the MLG and consequent injury to the occupants of the airplane.

# (f) Compliance

Comply with this AD within the compliance times specified, unless already done.

# (g) Hinge Pin Identification and Replacement for Model ATR72 Airplanes

For Model ATR72 airplanes: Within 12 months after the effective date of this AD, inspect for the serial number of the left-hand (LH) and right-hand (RH) MLG rear hinge pins having part number (P/N) D61000. A review of airplane maintenance records is acceptable in lieu of this identification if the part number and serial number of the LH and RH MLG rear hinge pins can be conclusively determined from that review. If a rear hinge pin having P/N D61000 has a serial number listed in Messier-Bugatti-Dowty Service Bulletin 631-32-213, dated December 16, 2013; or Messier-Bugatti-Dowty Service Bulletin 631-32-216, Revision 1, dated December 17, 2013; as applicable: Within 12 months after the effective date of this AD, replace the pin with a serviceable part as identified in paragraph (h) of this AD, in accordance with the Accomplishment Instructions of Messier-Bugatti-Dowty Service Bulletin 631-32-213, dated December 16, 2013; or Messier-Bugatti-Dowty Service Bulletin 631-32-216, Revision 1, dated December 17, 2013; as applicable.

# (h) Definition of Serviceable Hinge Pin for Model ATR72 Airplanes

For Model ATR72 airplanes: For purposes of paragraph (g) of this AD, a serviceable MLG rear hinge pin is a pin that is specified in paragraph (h)(1) or (h)(2) of this AD.

- (1) A hinge pin that is not identified in Messier-Bugatti-Dowty Service Bulletin 631-32-213, dated December 16, 2013; or Messier-Bugatti-Dowty Service Bulletin 631-32-216, Revision 1, dated December 17, 2013; as applicable.
- (2) A hinge pin that has been inspected and reconditioned, in accordance with the Accomplishment Instructions of Messier-Bugatti-Dowty Service Bulletin 631-32-213, dated December 16, 2013; or Messier-Bugatti-Dowty Service Bulletin 631-32-216, Revision 1, dated December 17, 2013; as applicable.

### (i) MLG Pin Identification and Replacement for Model ATR72 Airplanes

For Model ATR72 airplanes: At the earlier of the times specified in paragraphs (i)(1) and (i)(2) of this AD, inspect all LH and RH MLG pins for a part number and serial number listed in Messier-Bugatti-Dowty Service Bulletin 631-32-214, dated January 13, 2014; or Messier-Bugatti-Dowty Service Bulletin 631-32-219, dated March 3, 2014; as applicable. A review of airplane maintenance records is acceptable in lieu of this inspection if the part number and serial number of the LH and RH MLG pin can be conclusively determined from that review. If any affected MLG pin is found: At the earlier of the compliance times specified in paragraphs (i)(1) and (i)(2) of this AD, replace the MLG with a serviceable MLG as identified in paragraph (j) of this AD, using a method approved by the Manager, International Branch, ANM-116, Transport Airplane Directorate, FAA; or the European Aviation Safety Agency (EASA); or ATR – GIE Avions de Transport Régional's EASA Design Organization Approval (DOA).

(1) No later than the next MLG overhaul scheduled after the effective date of this AD.

(2) Within 20,000 flight cycles or 9 years, whichever occurs first, accumulated since installation of the MLG on an airplane since new or since last overhaul, as applicable.

### (j) Definition of Serviceable MLG for Model ATR72 Airplanes

For Model ATR72 airplanes: For purposes of paragraph (i) of this AD, a serviceable MLG is one that incorporates pins specified in paragraph (j)(1) or (j)(2) of this AD.

- (1) Pins that are not identified in Messier-Bugatti-Dowty Service Bulletin 631-32-214, dated January 13, 2014; or Messier-Bugatti-Dowty Service Bulletin 631-32-219, dated March 3, 2014; as applicable.
- (2) Pins that have been inspected and reconditioned in accordance with the Accomplishment Instructions of Messier-Bugatti-Dowty Service Bulletin 631-32-214, dated January 13, 2014; or Messier-Bugatti-Dowty Service Bulletin 631-32-219, dated March 3, 2014; as applicable.

# (k) MLG Pin Identification and Replacement for Model ATR42 Airplanes

(1) For Model ATR42 airplanes: Within the compliance time identified in paragraph (k)(1)(i) or (k)(1)(ii) of this AD, whichever occurs first, inspect for any LH and RH MLG pins having a part number and serial number listed in Messier-Bugatti-Dowty Service Bulletin 631-32-215, dated January 13, 2014; or Messier-Bugatti-Dowty Service Bulletin 631-32-220, dated March 3, 2014; as applicable. A review of airplane maintenance records is acceptable in lieu of this identification if the part number and serial number of the LH and RH MLG pin can be conclusively determined from that review.

- (i) No later than the next MLG overhaul scheduled after the effective date of this AD.
- (ii) Within 20,000 flight cycles or 9 years, whichever occurs first, accumulated since installation of the MLG on an airplane since new or since last overhaul, as applicable.
- (2) If the MLG pin having a part number and serial number listed in Messier-Bugatti-Dowty Service Bulletin 631-32-215, dated January 13, 2014; or Messier-Bugatti-Dowty Service Bulletin 631-32-220, dated March 3, 2014; as applicable; is found to be installed during the identification required by paragraph (k)(1) of this AD, within the compliance time identified in paragraph (k)(1) of this AD, replace the MLG with a serviceable MLG, using a method approved by the Manager, International Branch, ANM-116, Transport Airplane Directorate, FAA; or the EASA; or ATR GIE Avions de Transport Régional's EASA DOA. A serviceable MLG is a part that has pins as identified in paragraph (k)(2)(i) or (k)(2)(ii) of this AD.
- (i) Pins that are not listed in Messier-Bugatti-Dowty Service Bulletin 631-32-215, dated January 13, 2014; or Messier-Bugatti-Dowty Service Bulletin 631-32-220, dated March 3, 2014; as applicable.
- (ii) Pins that have been inspected and reconditioned, in accordance with the Accomplishment Instructions of Messier-Bugatti-Dowty Service Bulletin 631-32-215, dated January 13, 2014; or Messier-Bugatti-Dowty Service Bulletin 631-32-220, dated March 3, 2014; as applicable.

# (1) Credit for Previous Actions

This paragraph provides credit for actions required by paragraph (g) of this AD, if those actions were performed before the effective date of this AD using Messier-Bugatti-Dowty Service Bulletin 631-32-216, dated October 30, 2013, which is not incorporated by reference in this AD.

### (m) Other FAA AD Provisions

The following provisions also apply to this AD:

- (1) Alternative Methods of Compliance (AMOCs): The Manager, International Branch, ANM-116, Transport Airplane Directorate, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the International Branch, send it to ATTN: Tom Rodriguez, Aerospace Engineer, International Branch, ANM-116, Transport Airplane Directorate, FAA, 1601 Lind Avenue SW., Renton, WA 98057-3356; telephone 425-227-1137; fax 425-227-1149. Information may be emailed to: 9-ANM-116-AMOC-REQUESTS@faa.gov. Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office. The AMOC approval letter must specifically reference this AD.
- (2) Contacting the Manufacturer: For any requirement in this AD to obtain corrective actions from a manufacturer, the action must be accomplished using a method approved by the Manager, International Branch, ANM-116, Transport Airplane Directorate, FAA; or the EASA; or ATR GIE Avions de Transport Régional's EASA DOA. If approved by the DOA, the approval must include the DOA-authorized signature.

### (n) Related Information

- (1) Refer to Mandatory Continuing Airworthiness Information (MCAI) EASA Airworthiness Directive 2014-0074, dated March 21, 2014, for related information. This MCAI may be found in the AD docket on the Internet at http://www.regulations.gov/#!documentDetail;D=FAA-2015-0682-0002.
- (2) Service information identified in this AD that is not incorporated by reference is available at the addresses specified in paragraphs (o)(3) and (o)(4) of this AD.

# (o) Material Incorporated by Reference

- (1) The Director of the Federal Register approved the incorporation by reference (IBR) of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.
- (2) You must use this service information as applicable to do the actions required by this AD, unless this AD specifies otherwise.
- (i) Messier-Bugatti-Dowty Service Bulletin 631-32-213, dated December 16, 2013.
  - (ii) Messier-Bugatti-Dowty Service Bulletin 631-32-214, dated January 13, 2014.
  - (iii) Messier-Bugatti-Dowty Service Bulletin 631-32-215, dated January 13, 2014.
- (iv) Messier-Bugatti-Dowty Service Bulletin 631-32-216, Revision 1, dated December 17, 2013. Pages 4, 5, and 8 of this service bulletin are the original issue and are dated October 30, 2013.
  - (v) Messier-Bugatti-Dowty Service Bulletin 631-32-219, dated March 3, 2014.
  - (vi) Messier-Bugatti-Dowty Service Bulletin 631-32-220, dated March 3, 2014.
- (3) For service information identified in this AD, contact ATR GIE Avions de Transport Régional, 1, Allée Pierre Nadot, 31712 Blagnac Cedex, France; telephone

+33 (0) 5 62 21 62 21; fax +33 (0) 5 62 21 67 18; email continued.airworthiness@atr.fr; Internet http://www.aerochain.com.

- (4) You may view this service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221.
- (5) You may view this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: http://www.archives.gov/federal-register/cfr/ibr-locations.html.

Michael Kaszycki,
Acting Manager,
Transport Airplane Directorate,
Aircraft Certification Service.
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Issued in Renton, Washington, on November 12, 2015.